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APPLICATION NO. 005642	FILING DATE 10/24/01	FIRST NAMED INVENTOR RODRIGUEZ	ATTORNEY DOCKET NO. A-5784
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005642 WM01/1024
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EXAMINER SRIVASTAVA, V

ART UNIT 2611	PAPER NUMBER
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DATE MAILED:

10/24/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

~~09/589,521~~

Applicant(s)

Arturo A. Rodriguez et al

Examiner

Vivek Srivastava

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on Aug 13, 2001

2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-29 is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 1-26 is/are rejected.

7) ☒ Claim(s) 27-29 is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☐ All b) ☐ Some* c) ☐ None of:

- ☐ Certified copies of the priority documents have been received.
- ☐ Certified copies of the priority documents have been received in Application No. _____
- ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☐ Notice of References Cited (PTO-892)

18) ☐ Interview Summary (PTO-413) Paper No(s). _____

16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

19) ☐ Notice of Informal Patent Application (PTO-152)

17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____

20) ☐ Other:

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DETAILED ACTION

Claim Rejections - 35 U.S.C. § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 - 3, 7, 9, 13, 20, 21 22 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki (5,943,047) in view of Brown (5,771,435).

Considering claim 1, Suzuki discloses a bandwidth allocation manager for determining bandwidth allocation in a digital broadband delivery system (see fiber optics in col 5 lines 22 - 47, col 11 lines 63 - col 13 line 42). Suzuki fails to disclose wherein the bandwidth allocation manager dynamically assigns at least two content delivery modes to a plurality of digital transmission channels based at least partially on an allocation criteria received from a subscriber.

Suzuki discloses a bandwidth allocation manager dynamically assigning transmission channels at least partially on an allocation criteria received from a subscriber (col 11 lines 63 - col 13 line 42, col 14 lines 36 - 56, allocation manager met by transmission planning means). Brown teaches a hybrid NVOD and VOD system, or at least two available content delivery modes, wherein a user can switch to a VOD interactive session providing VCR type functions if requested

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application does not exceed the transmitted VOD versions to ensure the number of VOD versions does not strain a system (col 3 lines 30 - 67). It would have been obvious a hybrid VOD - NVOD system would provided users with a interactive application featuring VCR type functions while minimizing strain on the system bandwidth. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Suzuki to include the claimed at least two content delivery modes to have provides a user with VCR type functions while minimizing strain on the system bandwidth.

Considering claim 2, Suzuki and Brown disclose the claimed subject matter, wherein Brown discloses wherein the at least two different content delivery modes (see NVOD and VOD in col 3 lines 31 - 67).

Considering claim 3, Suzuki fails to discloses wherein the at least one content delivery mode comprises a video content delivery mode wherein at least three instances of a same movie video content are transmitted at time-spaced intervals of varying length.

As discussed above, the combination of Suzuki and Brown discloses NVOD system providing a plurality of streams at time-spaced intervals (a definition of a NVOD system). It would have been obvious to one skilled in the art to transmit at least three instances of the same video content at time-spaced intervals of varying length to accommodate viewers who cannot start viewing at a particular time. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combination of Suzuki and Brown to include the claimed at least three instances of a same movie video content are transmitted at

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time-spaced intervals to ensure viewers can select a desired movie at different times thus providing adding more viewing flexibility for the viewer.

Considering claim 7, Suzuki discloses a bandwidth allocation system in a digital broadband delivery system (see fiber optics in col 5 lines 22 - 47, col 11 lines 63 - col 13 line 42), a bandwidth allocation manager that determines a bandwidth allocation schedule in the digital broadband delivery system based at least partially on an allocation criteria received from a subscriber (col 11 lines 63 - col 13 line 42, col 14 lines 36 - 56, allocation manager met by transmission planning means), a network manager in communication with the bandwidth allocation manager, wherein the network manager allocates the predetermined bandwidth according to the bandwidth allocation schedule determined by the bandwidth allocation manager (col 11 lines 63 - col 13 line 42, col 14 lines 36 - 56, network manager is inherent since the bandwidth is allocated according to the bandwidth allocated as determined by the transmission planner). Suzuki fails to disclose assigning at least two different content delivery modes to a plurality of digital transmission channels. See claim 1 for obviousness

Regarding claim 8, Suzuki fails to disclose the claimed video-on-demand application server in communication with the bandwidth allocation manager, wherein the VOD application server transmits a list of available content delivery modes to the bandwidth allocation manager.

The combination of Suzuki and Brown discloses transmitting via VOD mode or NVOD mode depending on constraints on the system's bandwidth. Brown further teaches monitoring the number of people requesting and viewing a VOD transmission and teaches allocating bandwidth

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for a VOD transmission only if system limits would not be exceeded (col 3 line 51 - col 4 line 15, col 7 line 13 - col 8 line 30). It would have been obvious providing a list of available modes to the bandwidth allocation manager to indicate whether or not to allocate bandwidth for a VOD session based on the availability of bandwidth and system limits. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Suzuki to include the claimed VOD applications server to indicate to the bandwidth allocation manager the list of modes available based on the available bandwidth and system limits.

Considering claim 9, Suzuki and Brown disclose the claimed subject matter, wherein Brown discloses wherein the at least two different content delivery modes (see NVOD and VOD in col 3 lines 31 - 67).

Regarding claim 13, see claim 3.

Considering claim 19, Suzuki discloses a method for allocating bandwidth in a digital broadband delivery system (see fiber optics in col 5 lines 22 - 47, col 11 lines 63 - col 13 line 42), comprising initiating a bandwidth allocation event (col 11 lines 13 - 19, col 11 lines 63 - col 13 line 42, initiating is inherent since user sends request for video in response to initiation for headend), receiving an allocation criteria from a subscriber (col 11 lines 63 - col 13 line 42, allocation criteria met by request), and dynamically determining a bandwidth allocation schedule based at least on partially on the allocation criteria received from the subscriber (col 11 lines 63 - col 13 line 42, col 14 lines 36 - 62, col 15 lines 13 - 27). Suzuki fails to disclose the claimed by

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dynamically assigning at least two different content delivery modes to a plurality of digital transmission channels. See claim 1.

Considering claim 20, Suzuki fails to disclose determining a bandwidth allocation schedule based at least partially on the allocation criteria received from a subscriber comprises determining a bandwidth allocation schedule by dynamically assigning a content delivery mode to a plurality of digital transmission channels.

As discussed in claim 19, Suzuki discloses determining a bandwidth allocation schedule for transmitting VOD programming. Brown teaches a hybrid NVOD and VOD wherein when it is determined that VOD request strains a system, a requester is directed to view a time-staggered version of the requested program (col 3 lines 52 - 60, col 7 lines 13 - 56). It would have been obvious a hybrid VOD - NVOD system would have accommodated a greater number of requesters while minimizing strain on the system's bandwidth since a dedicated stream would not be needed for each requester as required in a VOD system. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Suzuki to include the claimed content delivery mode to have an option of switching to an NVOD time staggered broadcast to accommodate a greater number of subscribers when necessary without straining the system's bandwidth.

Considering claim 21, Suzuki and Brown disclose the claimed subject matter, wherein Brown discloses wherein the at least two different content delivery modes (see NVOD and VOD in col 3 lines 31 - 67).

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Regarding claim 22, see claim 3.

Considering claim 26, Suzuki discloses comprising allocating bandwidth in the digital broadband delivery system according to the bandwidth allocation schedule (col 11 lines 63 - col 13 line 42, col 14 lines 36 - 56).

3. Claims 4, 10 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki (5,943,047) in view of Brown (5,771,435) as applied to claims 1, 7 and 19 above, and further in view of Ishizaki et al (6,108,002).

Regarding claims 4, 10 and 23, the combination of Suzuki and Brown disclose requesting and viewing a program but fail to disclose the claimed wherein the allocation criteria received from the subscriber comprises a subscriber reservation request identifying a date and time that the subscriber wishes to reserve for viewing a program in the future. Ishizaki teaches by a subscriber requesting a on demand program by specifying the time and date for delivery, plurality of requests for the same program for the same date and time can be delivered simultaneously thereby efficiently utilizing the transmission network (col 10 lines 8 - 38, Abstract). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combination of Suzuki and Brown to include the claimed reservation request to provide simultaneous communication thus providing a more efficient system to utilize the transmission network.

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4. Claims 5, 11 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki (5,943,047) in view of Brown (5,771,435) as applied to claims 1 and 7 above, and further in view of Haddad (5,835,843).

Regarding claim 5, Suzuki and Brown fail to disclose the claimed allocation criteria received from the subscriber comprises a plurality of subscriber reservation requests with at least two assigned priorities.

Haddad teaches a video distribution center for distributing requested video to viewers (Abstract) wherein a order processing computer weighs each request and schedules and delivers in successive order (col 18 lines 33 - 37). It would have been obvious weighing each request (meeting the assigning a priority to a plurality of reservation requests) would have ensured each request would have been processed and serviced in successive order. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combination of Suzuki and Brown to include the claimed assigning at least two priorities to ensure each request is serviced or processed in order or in turn.

Regarding claim 11, see claim 5.

Regarding claim 24, see claim 5

5. Claims 6, 12 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki (5,943,047) in view of Brown (5,771,435) as applied to claims 1 and 7 above, and further in view of Haddad (5,835,843)

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Considering claims 6, 12 and 25, Suzuki discloses wherein the bandwidth allocation manager processes a plurality of allocation criteria according to a statistical model to determine the bandwidth allocation module (col 13 lines 4 - col 14 line 56, statistical model is met by capacity allocated with respect to time zone). Suzuki fails to disclose the claimed wherein the statistical model assigns a weight to each of the allocation criteria and wherein the assigned weight determines the priority given to each allocation criteria. Haddad teaches a video distribution center for distributing requested video to viewers (Abstract) wherein a order processing computer weighs each request and schedules and delivers in successive order (col 18 lines 33 - 37). It would have been obvious including a statistical model to assign a weight and resulting priority in Suzuki would have ensured each request would have been processed and serviced in successive order. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Suzuki to include the claimed assigning a weight to each of the allocation criteria to determine priority to ensure each request is serviced or processed in order or in turn.

6. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki (5,943,047) in view of Ishizaki (6,108,002).

Considering claim 14, Suzuki discloses a digital home communication terminal for use in a digital broadband delivery system (see fiber optics in col 5 lines 22 - 47, col 11 line 63 - col 12 line 64) containing a bandwidth allocation manager (col 12 lines 10 - col 13 line 41, col 14 lines

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36 - 56, allocation manager met by transmission planning means), a tuner that transmits the subscriber criteria to the bandwidth allocation manager for use in dynamically allocating bandwidth in the digital broadband delivery system (fig 10 item 11, col 12 line 10 - col 13 line 41, col 14 lines 45 - 56). Suzuki fails to disclose the claimed interface. Ishizaki teaches by including and interface for receiving a subscriber request for an on demand program by specifying the time and date for delivery, plurality of requests for the same program for the same date and time can be delivered simultaneously thereby efficiently utilizing the transmission network (col 10 lines 8 - 38, Abstract). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Suzuki to include the claimed reservation request to provide simultaneous communication thus providing a more efficient system to utilize the transmission network.

7. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki (5,943,047) in view of Ishizaki (6,108,002) as applied to claim 14 above, and further in view of Haddad (5,835,843).

Regarding claim 15, Suzuki discloses a tuner that receives channel allocation information from the bandwidth allocation manager and processes the information into a format suitable for presentation to a subscriber (fig 10, col 14 lines 46 - 62, col 15 lines 13 - 27), however, the combination of Suzuki and Ishizaki fails to disclose wherein the channel allocation information comprises VOD catalogue data that provides variable fee structures for a particular program.

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Haddad teaches providing a user with a catalog with price schedules (see "price" col 7 lines 45 - 50) wherein varying prices for the same product are offered by transmitting a requested video during off peak hours (col 3 lines 1- 5). It would have been obvious including a varying price structure in a VOD catalogue in the combination of Suzuki and Ishizaki would have provided viewers with reduced fees or prices for ordering a video during non-peak hours. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combination of Suzuki and Ishizaki to include the claimed VOD catalogue with a variable fee structure to provide viewers with reduced prices for seeing a video while at the same time minimizing strains on the network bandwidth.

8. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki (5,943,047) in view of Ishizaki (6,108,002), as applied to claim 14 above, and further in view of Haddad (5,835,843).

Regarding claim 18, the combination of Suzuki and Ishizaki fails to disclose the claimed allocation criteria received from the subscriber comprises a plurality of subscriber reservation requests with at least two assigned priorities.

Haddad teaches a video distribution center for distributing requested video to viewers (Abstract) wherein a order processing computer weighs each request and schedules and delivers in successive order (col 18 lines 33 - 37). It would have been obvious weighing each request (meeting the assigning a priority to a plurality of reservation requests) would have ensured each

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request would have been processed and serviced in successive order. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combination of Suzuki and Ishizaki to include the claimed assigning at least two priorities to ensure each request is serviced or processed in order or in turn.

Response to Arguments

With respect to claim 14, the Applicant argues “neither the Suzuki patent nor the other references cited in the office action teach or suggest that a subscriber can submit a request to reserve future bandwidth to fulfill his or her request to view a program at a later date”.

The Examiner concurs Suzuki does not disclose the amended limitation, however, as discussed in the rejection above, it would have been obvious to modify Suzuki to include this limitation.

With respect to claim 15, the Applicant argues “the channel allocation information comprises VOD catalogue data that provides variable fee structures for a particular program” is not taught nor suggested by Suzuki or the other references.

The Examiner concurs Suzuki does not disclose the amended limitation, however, as discussed in the rejection above, it would have been obvious to modify Suzuki to include this limitation.

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With respect to claim 23, the Applicant's arguments are the same as the arguments for claim 14.

With respect to claim 25, the Applicant argues "the Suzuki patent does not disclose the use of statistical model that factors in a plurality of criteria and assigns weights to each criteria".

The Examiner concurs Suzuki does not disclose the amended limitation, however, as discussed in the rejection above, it would have been obvious to modify Suzuki to include this limitation.

With respect to claim 1, the Applicant argues "neither of these references teach or suggest, either individually or collectively, that at least two different content delivery modes are assigned to a plurality of digital transmission channels.

The Examiner respectfully disagrees. Interpreting the claim as broadly as possible, Brown does indeed disclose assigning at least two different content delivery modes to a plurality of channels. In particular, Brown discloses assigning two different content delivery modes to the plurality of channels, a NVOD mode and a VOD mode (see column 3 lines 30 - 40).

Giving the claim the broadest interpretation, at least two different content delivery modes are assigned for delivery of data in lieu of one. Brown clearly discloses this limitation.

The Applicant further argues that "Brown, on the other hand, discloses that a VOD subscriber may be redirected to a previously allocated digital transmission channel that is broadcasting and NVOD transmission when the system resources are strained and cannot accommodate a VOD request". It seems that the Applicant's are trying to point out that when

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system resources are strained, Brown only offers a single mode of delivery. The Examiner respectfully directs the Applicant's to column 3 lines 60 - 65. Brown discloses "Alternatively, as further discussed below, another embodiment of the invention makes this determination by ascertaining whether the transmission of the VOD version would cause the number of transmitted VOD versions of the requested application to exceed a pre-specified maximum number. For example, one embodiment of the invention denies the VOD request if it ascertains that the number of currently transmitted VOD versions of the requested application equals a pre-specified maximum number". Brown clearly disclose transmitting via VOD modes and via NVOD modes thus meeting the claimed at least two delivery modes. As a result, the Applicant's arguments are not persuasive.

With respect to claim 2, Brown discloses the claimed "at least two different content delivery modes" as discussed in claim 1.

With respect to claim 3, the Applicant argues that "at least three instances of the same movie video content are transmitted at time-spaced intervals of varying length. Contrary to the statements in the office action, this claim does not read upon traditional NVOD broadcasts with are broadcast at time-spaced intervals of uniform length.

The Examiner concurs, however, it would have been obvious to modify Suzuki to include this feature.

With respect to claim 4, the Applicant's arguments are the same as claim 23.

With respect to claim 6, the Applicant's arguments are the same as claim 25.

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With respect to claim 7, Brown discloses the claimed “at least two different content delivery modes” as discussed in claim 1.

With respect to claim 8, the Applicant argues “Neither Suzuki nor Brown disclose a VOD application servers as recited in claim 8 nor do they disclose that the server transmits a list of available content delivery modes to the bandwidth allocation manager. This lack of disclosure is not surprising because neither Suzuki nor Brown disclose or suggest that more than one content delivery mode may be dynamically assigned to a plurality of digital transmission channels.”

The Examiner respectfully disagrees. Brown discloses transmitting via two content delivery modes, as a result, the Applicant’s arguments are not persuasive.

With respect to claims 5, 11, 18 and 24 the Applicant argues that the system disclosed in Graves, where a user ranks programs to enable screening of programs based on content, is materially different from the invention of claims 5, 11, 18 and 24, which recites a plurality of subscriber reservation requests with at least two assigned priorities.

Applicant’s arguments are moot in view of a new grounds for rejection.

Allowable Subject Matter

9. Claims 27 - 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Arias et al (6,118,976) - Asymmetric data communications system

Ganek et al (5,682,597) - Hybrid VOD and NVOD system

Any response to this action should be mailed to:

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or faxed to:

(703) 308-9051, (for formal communications intended for entry)

Or:

(703) 308- 5399 (for informal or draft communications, please label

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Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vivek Srivastava whose telephone number is (703) 305 - 4038. The

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examiner can normally be reached on Monday - Thursday from 8:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andy Faile, can be reached at (703) 305 - 4380.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (703) 305 - 3900.

10/16/01



VIVEK SRIVASTAVA
PATENT EXAMINER